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John F. Perullo
Kirkpatrick & Lockhart LLP
75 State Street
Boston, MA 02109-1808

EXAMINER

LUDLOW, JAN M

ART UNIT

PAPER NUMBER

1743

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/918,858

Applicant(s)

FRISWELL ET AL.

Examiner

Jan M. Ludlow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 37-41 is/are allowed.
- 6) ☒ Claim(s) 1-19, 21, 23-29, 34 and 35 is/are rejected.
- 7) ☒ Claim(s) 20, 22 and 30-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s) _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

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1. Figures 10-11 are objected to as being informal.
2. Claims 16-17 are objected to because of the following informalities: Claims 16-17 should depend from claim 15 for proper antecedence. Applicant is requested to carefully review the claims for similar errors. Appropriate correction is required.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
 4. A person shall be entitled to a patent unless –
 5. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
 6. (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 8. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 10. Determining the scope and contents of the prior art.
 11. Ascertaining the differences between the prior art and the claims at issue.
 12. Resolving the level of ordinary skill in the pertinent art.
 13. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. Claims 1, 4-6, 10, 12, 15-18, 21, 24, 27, 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Lancaster.

16. Lancaster teaches a pipetting head moveable vertically (col. 3, line 2) over a microtiter dish that is moveable horizontally on a sample support surface (arrow, figure 1). A pipette head unit 106 is releasably attached to the dispense head by clamps 114, 116 actuated by locking cam 130. The pipette head slides on over retaining lips 118, is positively positioned by abutment of the rear ends of plates 108 and 110 against the bottom edge of support bracket 36, and clamped in place by rotation of cam 130. It is unclamped and slid off to remove. See, e.g., col. 4, lines 1-41. It is the examiner's position that this is a "quick release mounting system" as claimed. Pistons and a vacuum source (negative pressure source) are provided for aspiration and dispensing (col. 4, line 42- col. 5, line 40). Electrical and pneumatic control is provided, including a solenoid valve connected to the vacuum source (col. 5, lines 55-75).

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17. Claims 2, 3, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lancaster.

18. The teachings of Lancaster are given above.

19. Lancaster fails to teach 3-D movement or plastic tips.

20. It would have been obvious to provide 3-D movement of the head as was known in the art (see, e.g., Sollbuhmer [0007]) to move the head across a two dimensional array of microtiter plates for alternative movement during more complex dispensing. It would have been obvious to make the pipettes of plastic for its known properties of inertness and economy.

21. Claims 1, 4-5, 10, 18-19, 24-25, 27, 29 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Carl.

22. Carl teaches a pipetting device for that moves horizontally (col: 2, line 34). Pistons 32 are used to draw and expel fluid. Pipette tip mounting plate 18 including o-rings 22 is supported in pipette tip plate holder 16, which is moved into and form engagement with the pipetting device (instant head) which moves vertically on shafts 12 and 14 (col. 3, lines 2-58). The shafts constitute the instant pins and provide alignment.

23. Claims 2-3, 7-9, 11-17, 28 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carl.

24. Carl fails to teach 3-D movement, the claimed control, plastic tips or a second cannula array.

25. It would have been obvious to provide 3-D movement of the head as was known in the art (see, e.g., Sollbuhmer [0007]) to move the head across a two dimensional

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array of microtiter plates for alternative movement during more complex dispensing. It would have been obvious to make the pipettes of plastic for its known properties of inertness and economy. It would have been obvious to provide a controller, such as a robotic controller, in order to automate the device as was known in the art. It would have been obvious to provide a second cannula array for use when the first is not in use, e.g., when it is being washed, autoclaved or repaired.

26. Claims 1, 2, 4-5, 15-19, 21, 23, 24, 26, 27, 29, 34-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Maeda.

27. Maeda teaches a pipetter device having relative motion in the X, Y and Z axes (col. 1, lines 29-53). A detachable nozzle head is provided so that it can be readily replaced by a head having different size nozzles (col. 2, lines 43-47). An elastic seal plate with openings is provided (col. 4, lines 54-55). Nozzles (instant cannulae) are held in plate 97 which is clamped to the dispense head (col. 5, lines 5-55). Brackets 65, 77 which together form an L-shaped bracket support clamp plate 103 which has slots for 11 to fit guides 105. The nozzle holder 97 can be removed by forcing release pins 117 to overcome upward biasing springs 113 for removal by sliding horizontally off of holder 108.

28. Claims 3, 7-14, 28, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda.

29. The teachings of Maeda are given above.

30. Maeda fails to teach 3-D movement, the claimed control, plastic tips or a second cannula array.

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31. It would have been obvious to provide 3-D movement of the head as was known in the art (see, e.g., Sollbuhmer [0007]) to move the head across a two dimensional array of microtiter plates for alternative movement during more complex dispensing. It would have been obvious to make the pipettes of plastic for its known properties of inertness and economy. It would have been obvious to provide a controller, such as a robotic controller, in order to automate the device as was known in the art. It would have been obvious to provide a second cannula array for use when the first is not in use, e.g., when it is being washed, autoclaved or repaired.

32. Claims 20, 22, 30-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

33. Claims 37-41 are allowed.

34. The following is an examiner's statement of reasons for allowance: the prior art fails to teach or suggest the claimed structure or method. Note that claim 30 does not read on picking up an array of pipette tips as the cannulae because claim 29 requires clamping, not present in picking up conventional tips.

35. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

36. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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37. Sollbuhmer et al (2002/0051737) teaches a pipetting head 10 with pipettes 12 over stage 14 carrying well plates and a cleaning station. The stage moves horizontally along a line and pivots [0033]. The pipette head moves vertically [0035]. Component movement and valve actuation [0040]. Camera or optical sensors are provided to monitor and determine element positioning [0041, 0042]. Micropumps 46 provide pressure and vacuum. A holder 32 supports the head 10, via grooves 52 and has a stop element to ensure proper positioning, and a quick acting clamping lever and eccentric holds the head in place [0048-0051]. The quick release mounting is between the head and the apparatus, not the cannulae and the head.

38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jan M. Ludlow whose telephone number is (703) 308-4039. The examiner can normally be reached on Monday-Thursday, 11:30 am - 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (703) 308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Jan M. Ludlow
Primary Examiner
Art Unit 1743

Jml
September 28, 2003